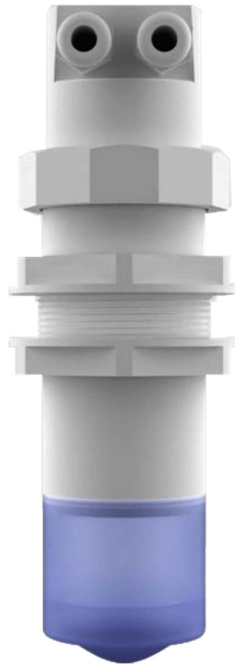SENSORS & CONTROLLERS

ANALYZERS & SAMPLERS

LEVEL, FLOW & PRESSURE

WEB APP & DATALOGGING

ACCESSORIES

RDR 81 DATASHEET
RADAR LEVEL TRANSMITTER

MAIN FEATURES

Compact unit for level measurement of liquids. RDR 81 is unaffected by temperature fluctuations, high pressure and condensation. Thanks to its precise signal focusing it provides a reliable and accurate measurement. RDR81 can be easily configured.

Constructed entirely in PP, RDR 81 is particularly indicated in presence of corrosive media (acid vapors) and therefore in storage tanks. Typical applications include water lifting and treatment plants as well as sea and rivers level monitoring.

- Level measurement without contact for liquids

- Range 20m

- Radar 80GHz

- IP67/IP68 (Sensor) - IP68 opt.

- 4÷20mA output

- 2 configurable relays

- Remote control via Smartphone

APPLICATIONS

- Wastewater

- Food and Beverage

- Pulp and paper

- Chemical industry

- Swimming pool

- Fish farming

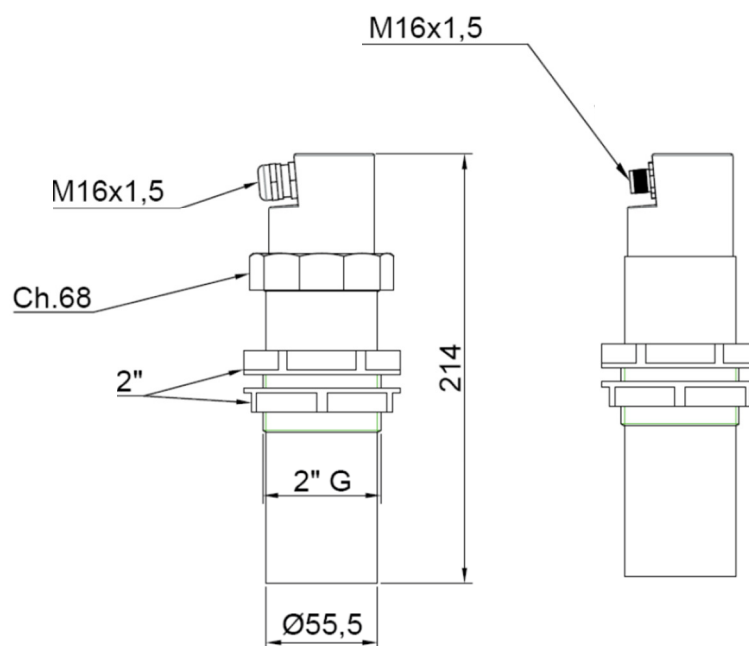- Drinking water

- Electroplating

- Cooling towers

TECHNICAL DATA

Housing / sensor material	PP
Mechanical installation	2 "GAS M (DN80 PP flanges optional)
Degree of protection	IP67 - IP68 optional
Electrical connection	Terminal blocks or waterproof connector cer. IP68 (optional)
Working temperature	-20... 60°C
Pressure	Max 3 bar
Power supply	20÷30Vdc | 11÷14Vdc
Absorbed power	5W peak; 2.5W average
Analogue output	4 ... 20mA, max 750ohm
Relay in output	N° 2 3A 230Vac (n.a.) resistive
Digital communication	Modbus RTU
Maximum measuring range	0.05...20mt The distances expressed are valid for measurements from perfectly reflective surfaces, otherwise the maximum measurable distance is degraded
Block distance	Min 0.05m (suggested 0.1mm)
Accuracy	measurement deviation ± 5mm (if distance <250mm ± 10mm)
Resolution	2mm
Calibration	vers. IP67 display opt. - 2 buttons - modbus/bluetooth vers. IP68 modbus/bluetooth
Visualization	VL611 programming module (optional)

DIMENSIONS

ORDER CODES

RDR 81	Radar level transmitter Micro-waves FMCW For liquids max 20m Output: 4÷20mA + RS485 MODBUS 2 relays for alarms or pump control G 2"/PP threaded connection + nr 2 2" BSP/PP fixing bolts Working temperature: -20° ÷ +60°C
	Version
1	IP67 - programmable through 2 buttons, via MODBUS RTU, via BLUETOOTH (opt.) or via VL620 (opt.)
2	IP67 with male connectors - programmable via MODBUS RTU, via BLUETOOTH (opt.) or via VL621 (opt.) - <u>Cables required see point T,U,V,W</u>
3	IP68 with 10m cables - programmable ONLY via MODBUS RTU or via BLUETOOTH (opt.)
	Housing Material
B	Polypropylene (PP)
Z	Special
	Power Supply
4	24Vdc
5	12Vdc
	Accessories
A	None
B	BLUETOOTH
C	DN80 PN6 UNI 1092-1 flange in PP (600J001T)
D	VL620 keyboard/display programming module with 1m cable - for Version 1
E	PP Mounting bracket
F	VL621 keyboard/display programming module with 1m cable - for Version 2
T	Couple of 5m cables with IP68 female connector (for versions 2)
U	Couple of 10m cables with IP68 female connector (for versions 2)
V	Couple of 15m cables with IP68 female connector (for versions 2)
W	Couple of 20m cables with IP68 female connector (for versions 2)